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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09 990,848 | 11 21 2001 | Donald W. Berrian | V0077 7216WRM | 2722 |

7590 03 13 2003

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EXAMINER

SMITH, JOHNNIE L

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2881

DATE MAILED: 03 13 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/990,848

Applicant(s)

BERRIAN ET AL.

Examiner

Johnnie L Smith II

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s) _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>6, 7</u> | 6) <input type="checkbox"/> Other _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 5,898,179 (Smick et al). In reference to claims 1-3, Smick discloses an apparatus for ion implantation comprising a source of ions (13) comprising a parallel path fan (fig 7), a workpiece holder (10) configured for mechanical scanning, a selectively adjustable control system structure (fig 2A) for use in rotating the workpiece, and a beam measuring device (71)(see figs 1, 2A, 5, and 7, column 3 line 27 through column 5 line 27). Smick teaches a method for ion implantation of a workpiece comprising the steps of generating an ion beam perpendicular to a first XY plane, identifying a second plane about the XY axis, measuring the beam intensity along a line in the second plane, adjusting the ion beam accordingly, rotating the workpiece in alignment with the second plane, and

translating the rotated workpiece along the Y axis (column 1 line 45 through column 2 line 60, and claim 7).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 3-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 5,898,179 (Smick et al). Smick discloses all elements of the base claim, but failed to clearly teach the element of having at least one charge neutralization member selected for a said group as disclosed in claim 3, it would

have been obvious to one of ordinary skill in the art at the time of the invention was made to select a neutralization element from the group above of for the purpose of providing a neutrality net as taught in the disclosure of Smick (column 8 lines 56-67). Also as discussed above Smick discloses all elements of the base claim, but failed to clearly teach the elements of having the rotatable mechanism being rotated in linear alignment with the adjustable rotation control structure to maintain constant spacing or having the said rotation mechanism be comprised of an arm adapted to maintain a constant spacing between workpiece holder and neutralization member. It would having obvious to one of ordinary skill in the art at the time of the invention to make such modification to the disclosure of Smick for the purpose of having a constant equidistance between the elements in the apparatus.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patents; 6,163,033 (Smick et al) December 2000, 6,437,351 (Smick et al) August 2002, 5,406,088 (Burne et al) April 1995, and 4,943,728 (Dykstra et al) July 1990. All of the cited US patents contain art similar to that being claimed by applicant, more specifically, systems for controlling beam control for ion implanters.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnnie L Smith II whose telephone number is 703-305-0380. The examiner can normally be reached on Monday-Thursday 7-4 P.M. and Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on 703-308-4116. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



JLSII
March 7, 2003



JOHN R. LEE
SUPERVISOR
TECHNICAL CENTER
MAR 11 2003